Alberta notifiable disease summary 2020

Alberta

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Alberta Notifiable Disease Summary 2020
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Key Highlights

- **Novel Influenza**: There was one case of variant influenza A(H1N2)v reported in Alberta. More information can be found here.
- **Seasonal Influenza**: There were no influenza cases reported during the 2020-2021 influenza season. All cases reported in 2020 occurred during the 2019-2020 season.
- **Syphilis**: Cases of infectious syphilis in Alberta increased 9 per cent since the previous year (from 2,302 to 2,509 cases) and 507 per cent over the past five years (from 413 to 2,509 cases). There were 55 cases of congential syphilis (mother-to-child transmission) identified in 2020 compared with 44 cases identified in 2019. The increase in infectious syphilis follows similar trends in other countries such as the United Kingdom, Australia, USA, and Japan (Spiteri et al. 2019). The increase is concerning due to the risk of severe outcomes associated with neurosyphilis (which can occur at any stage of infection) and congenital syphilis.
- **Gonorrhea**: There was an 8 per cent decrease in cases from the previous year (from 5,333 to 4,893 cases), but a 32 per cent increase over the previous five years (from 3,702 to 4,893 cases). Anitibotic and multi-drug resistance in gonorrhea is still a global health concern. Although the proportion of gonococcal isolates resistant to recommended dual therapy (cefixime/ceftriaxone and azithromycin) in Alberta is low (Gratrix et al. 2018), multi-drug resistant *Neisseria gonorrhea* in Canada is increasing (Martin et al. 2019).
- **Rare Or Emerging Communicable Disease**: There was one case of *Trichuris Trichiura* reported.
- There are a number of notifiable disease counts which decreased in 2020. For example, there was a decline in the number of reported cases in many of the sexually transmitted and blood-borne infections (STBBIs) such as gonorrhea and hepatitis B and C, enteric infections such as giardiasis and *E. coli*, and respiratory infections such as influenza, pertussis and mumps. This may be related to changes in test-seeking behavior, changes in access to services, enhanced personal hygiene, reduced social contact and mixing, travel restrictions, or a combination of factors during the COVID-19 pandemic.
- Data and information related to COVID-19 in Alberta can be found here
- Additional information is available on Alberta Health's Interactive Health Data Application (IHDA) and in Supplementary Alberta Health Reports.

Table 1 Total number of notifiable communicable diseases reported in Alberta, 2016 to 2020

Disease Name	2016	2017	2018	2019	2020
Acute Flaccid Paralysis	5	2	7	6	5
Amoebiasis	52	38	56	28	23
Botulism	1	0	1	0	1
Brucellosis	2	2	1	1	0
Campylobacteriosis	1,017	1,034	1,118	1,106	919
Carbapenemase Producing Organisms	54	45	45	70	44
Chikungunya Virus	18	9	5	13	0
Chlamydia (including Lymphogranuloma venereum)	16,361	16,586	17,377	18,206	14,110
Congenital Cytomegalovirus	7	15	1	0	0
Congenital Toxoplasmosis	1	0	0	0	0
Creutzfeldt-Jakob Disease, Classic	9	13	9	9	4
Cryptococcus (Gattii)	1	2	2	0	0
Cryptosporidiosis	182	127	187	138	98
Cyclosporiasis	23	4	6	2	0
Dengue Fever	59	28	44	105	27
Diphtheria, Toxigenic - Cutaneous	0	2	2	3	1
Eastern Equine Encephalitis	0	1	0	0	0
Escherichia coli (Verotoxigenic)	145	138	338	393	222
Flavivirus (Other)	21	6	20	14	4
Giardiasis	410	345	423	425	243
Gonorrhea	3,702	4,754	5,005	5,333	4,893
Haemolytic Uremic Syndrome	11	16	13	13	4
Haemophilus influenzae - Non-serotype B, Invasive	77	51	48	67	40
Haemophilus influenzae - Serotype B, Invasive	0	1	3	0	0
Hantavirus	2	3	2	4	2
Hepatitis A	57	41	56	52	16
Hepatitis B	848	787	689	740	457
Hepatitis B (acute cases)	20	22	20	22	20
Hepatitis B (chronic carriers)	823	745	665	701	429
Hepatitis B (unknown carrier status)	5	20	4	17	8
Hepatitis C	1,664	1,477	1,452	1,324	603
Hepatitis C (acute cases)	147	130	148	154	87
Hepatitis C (chronic carriers)	1,498	1,336	1,286	1,138	508
Hepatitis C (unknown carrier status)	19	11	18	32	8
Hepatitis E	14	11	3	5	2
Herpes Simplex, Neonatal	3	2	0	0	0
Histoplasmosis	3	6	6	5	4
Human Immunodeficiency Virus	285	287	251	256	193
Influenza A, Seasonal	5,333	3,630	1,641	1,281	718
Influenza B, Seasonal	1,599	1,083	596	300	245
Influenza, Novel	0	0	0	0	1
Jamestown Canyon Virus	2	1	0	0	3
Japanese Encephalitis	0	0	1	0	0
Kawasaki Disease	1	1	0	0	0
Legionellosis	7	13	13	16	10
Leprosy	1	0	4	0	0
Listeriosis (includes congenital)	8	5	15	11	7
Lyme Disease	10	13	15	14	4
Malaria	106	83	102	99	44
Measles	1	2	6	4	1

(continued)

Disease Name	2016	2017	2018	2019	2020
Meningococcal Disease, Invasive	8	8	23	14	13
Mumps	8	115	19	33	14
Paratyphoid Fever (case and carrier)	5	9	10	23	10
Pertussis	337	1,054	273	344	134
Pneumococcal Disease, Invasive	473	453	481	426	294
Q Fever	3	3	2	0	1
Rare Or Emerging Communicable Disease	0	6	5	4	1
Rickettsial Infection (includes Rocky Mountain Spotted Fever)	0	0	2	1	4
Salmonellosis	1,145	1,070	934	753	780
Shellfish Poisoning	0	1	0	0	0
Shigellosis	74	87	78	105	54
Snowshoe Hare Virus Infection	0	1	0	0	1
Streptococcal Disease - Group A, Invasive	335	439	397	410	434
Streptococcal Disease - Group B, Newborn	30	31	1	0	0
Syphilis, Congenital	0	7	14	45	55
Syphilis, Infectious (Primary, secondary and early latent)	413	535	1,546	2,302	2,509
Syphilis, Non-infectious (Late latent)	245	203	232	313	320
Tetanus	1	0	0	0	0
Tuberculosis	238	224	221	246	258
Tularemia	1	1	0	1	1
Typhoid Fever - Case And Carrier	19	26	23	30	9
Typhus, Louseborne	0	0	1	0	0
Varicella (Chickenpox; Hospitalized)	12	6	12	4	6
Vibrio cholerae (non O1, non O139)	3	2	5	0	0
Vibrio parahaemolyticus	5	3	8	2	1
West Nile Virus, Asymptomatic Infection	0	0	5	0	1
West Nile Virus, Neurological Syndrome	1	2	8	2	0
West Nile Virus, Non-Neurological Syndrome	4	5	37	2	0
Yersiniosis	56	53	54	44	31
Zika Virus	43	7	2	5	0

Note:
Year is based on diagnosis date.
Numbers may change from previous reports due to improvements in data cleaning and delayed reporting.

Table 2 Rates (per 100,000 population) of notifiable communicable diseases reported in Alberta, 2016 to 2020

Disease Name	2016	2017	2018	2019	2020
Acute Flaccid Paralysis	0.12	0.05	0.16	0.14	0.11
Amoebiasis	1.24	0.90	1.30	0.64	0.52
Botulism	0.02	0.00	0.02	0.00	0.02
Brucellosis	0.05	0.05	0.02	0.02	0.00
Campylobacteriosis	24.24	24.38	26.01	25.36	20.78
Carbapenemase Producing Organisms	1.29	1.06	1.05	1.60	1.00
Chikungunya Virus	0.43	0.21	0.12	0.30	0.00
Chlamydia (including Lymphogranuloma venereum)	389.91	391.08	404.28	417.41	319.09
Congenital Cytomegalovirus	0.17	0.35	0.02	0.00	0.00
Congenital Toxoplasmosis	0.02	0.00	0.00	0.00	0.00
Creutzfeldt-Jakob Disease, Classic	0.21	0.31	0.21	0.21	0.09
Cryptococcus (Gattii)	0.02	0.05	0.05	0.00	0.00
Cryptosporidiosis	4.34	2.99	4.35	3.16	2.22
Cyclosporiasis	0.55	0.09	0.14	0.05	0.00
Dengue Fever	1.41	0.66	1.02	2.41	0.61
Diphtheria, Toxigenic - Cutaneous	0.00	0.05	0.05	0.07	0.02
Eastern Equine Encephalitis	0.00	0.02	0.00	0.00	0.00
Escherichia coli (Verotoxigenic)	3.46	3.25	7.86	9.01	5.02
Flavivirus (Other)	0.50	0.14	0.47	0.32	0.09
Giardiasis	9.77	8.13	9.84	9.74	5.50
Gonorrhea	88.23	112.09	116.44	122.27	110.65
Haemolytic Uremic Syndrome	0.26	0.38	0.30	0.30	0.09
Haemophilus influenzae - Non-serotype B, Invasive	1.84	1.20	1.12	1.54	0.90
Haemophilus influenzae - Serotype B, Invasive	0.00	0.02	0.07	0.00	0.00
Hantavirus	0.05	0.07	0.05	0.09	0.05
Hepatitis A	1.36	0.97	1.30	1.19	0.36
Hepatitis B	20.21	18.56	16.03	16.97	10.33
Hepatitis B (acute cases)	0.48	0.52	0.47	0.50	0.45
Hepatitis B (chronic carriers)	19.61	17.57	15.47	16.07	9.70
Hepatitis B (unknown carrier status)	0.12	0.47	0.09	0.39	0.18
Hepatitis C	39.66	34.83	33.78	30.36	13.64
Hepatitis C (acute cases)	3.50	3.07	3.44	3.53	1.97
Hepatitis C (chronic carriers)	35.70	31.50	29.92	26.09	11.49
Hepatitis C (unknown carrier status)	0.45	0.26	0.42	0.73	0.18
Hepatitis E	0.33	0.26	0.07	0.11	0.05
Herpes Simplex, Neonatal	0.07	0.05	0.00	0.00	0.00
Histoplasmosis	0.07	0.14	0.14	0.11	0.09
Human Immunodeficiency Virus	6.79	6.77	5.84	5.87	4.36
Influenza A, Seasonal	127.10	85.59	38.18	29.37	16.24
Influenza B, Seasonal	38.11	25.54	13.87	6.88	5.54
Influenza, Novel	0.00	0.00	0.00	0.00	0.02
Jamestown Canyon Virus	0.05	0.02	0.00	0.00	0.07
Japanese Encephalitis	0.00	0.00	0.02	0.00	0.00
Kawasaki Disease	0.02	0.02	0.00	0.00	0.00
Legionellosis	0.17	0.31	0.30	0.37	0.23
Leprosy	0.02	0.00	0.09	0.00	0.00
Listeriosis (includes congenital)	0.19	0.12	0.35	0.25	0.16
Lyme Disease	0.24	0.31	0.35	0.32	0.09
Malaria	2.53	1.96	2.37	2.27	1.00
Measles	0.02	0.05	0.14	0.09	0.02

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Disease Name	2016	2017	2018	2019	2020
Meningococcal Disease, Invasive	0.19	0.19	0.54	0.32	0.29
Mumps	0.19	2.71	0.44	0.76	0.32
Paratyphoid Fever (case and carrier)	0.12	0.21	0.23	0.53	0.23
Pertussis	8.03	24.85	6.35	7.89	3.03
Pneumococcal Disease, Invasive	11.27	10.68	11.19	9.77	6.65
Q Fever	0.07	0.07	0.05	0.00	0.02
Rare Or Emerging Communicable Disease	0.00	0.14	0.12	0.09	0.02
Rickettsial Infection (includes Rocky Mountain Spotted Fever)	0.00	0.00	0.05	0.02	0.09
Salmonellosis	27.29	25.23	21.73	17.26	17.64
Shellfish Poisoning	0.00	0.02	0.00	0.00	0.00
Shigellosis	1.76	2.05	1.81	2.41	1.22
Snowshoe Hare Virus Infection	0.00	0.02	0.00	0.00	0.02
Streptococcal Disease - Group A, Invasive	7.98	10.35	9.24	9.40	9.81
Streptococcal Disease - Group B, Newborn	0.71	0.73	0.02	0.00	0.00
Syphilis, Congenital	0.00	0.17	0.33	1.03	1.24
Syphilis, Infectious (Primary, secondary and early latent)	9.84	12.61	35.97	52.78	56.74
Syphilis, Non-infectious (Late latent)	5.84	4.79	5.40	7.18	7.24
Tetanus	0.02	0.00	0.00	0.00	0.00
Tuberculosis	5.67	5.28	5.14	5.64	5.83
Tularemia	0.02	0.02	0.00	0.02	0.02
Typhoid Fever - Case And Carrier	0.45	0.61	0.54	0.69	0.20
Typhus, Louseborne	0.00	0.00	0.02	0.00	0.00
Varicella (Chickenpox; Hospitalized)	0.29	0.14	0.28	0.09	0.14
Vibrio cholerae (non O1, non O139)	0.07	0.05	0.12	0.00	0.00
Vibrio parahaemolyticus	0.12	0.07	0.19	0.05	0.02
West Nile Virus, Asymptomatic Infection	0.00	0.00	0.12	0.00	0.02
West Nile Virus, Neurological Syndrome	0.02	0.05	0.19	0.05	0.00
West Nile Virus, Non-Neurological Syndrome	0.10	0.12	0.86	0.05	0.00
Yersiniosis	1.33	1.25	1.26	1.01	0.70
Zika Virus	1.02	0.17	0.05	0.11	0.00

Note:
Year is based on diagnosis date.
Numbers may change from previous reports due to improvements in data cleaning and delayed reporting.

Supplementary Alberta Health Publications

- Alberta Notifiable Disease Guidelines
  https://www.alberta.ca/notifiable-disease-guidelines.aspx
- Alberta STI Summary Report
  https://open.alberta.ca/publications/9781460145449
- Alberta Tick Surveillance Report
  https://open.alberta.ca/publications/2369-0690
- Seasonal Influenza in Alberta Report
  https://open.alberta.ca/publications/2561-3154
- Historical Trends of Selected Notifiable Communicable Diseases in Alberta, 1919 to 2014
  https://open.alberta.ca/publications/9781460125618

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